Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

1-38. (Cancelled)

39. (Previously presented) A method of treating a neovascularization in the eye of a patient comprising:

introducing a photosensitizer chemical into the circulation of the patient at a point remote from the eye, wherein said photosensitizer chemical is activated upon exposure to radiation having a wavelength within an absorption waveband of said photosensitizer chemical;

locating a feeder vessel through which blood flows to the region of neovascularization;

permitting the photosensitizer chemical to enter the neovascularization;

photocoagulating the feeder vessel to substantially prevent said vessel from feeding blood to the neovascularization thereby providing a substantially reduced blood flow within the neovascularization; and

after photocoagulating the feeder vessel, activating the photosensitizer chemical by exposure to said radiation to produce either a photochemical effect or a photothermal effect or both a photochemical effect and a photothermal effect within the reduced blood flow of the neovascularization which in effect destroys the neovascularization.

40. (Previously presented) A method according to Claim 39, wherein no significant photochemical or photothermal effect occurs in blood vessels which do not have a substantially reduced blood flow caused by photocoagulation thereof, thereby ensuring that blood vessels and tissues unrelated to the neovascularization remain substantially undamaged during the treatment process.

41. (Previously presented) A method according to Claim 39, wherein the photosensitizer chemical is activated by a level of radiation which is effective to induce either the photothermal effect or the photochemical effect or both the phothermal effect and the photochemical effect within the reduced blood flow of the neovascularization, and wherein the level of radiation causes substantially no damage to blood vessels or tissues unrelated to the neovascularization.

42. (Previously presented) A method according to Claim 39, wherein the photosensitizer chemical is activated by a diffused and/or low level of radiation.

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43. (Previously presented) A method according to Claim 39, wherein the photosensitizer chemical is also a detectable marker.

44. (Previously presented) A method according to Claim 43, wherein the photosensitizer chemical is employed to locate the feeder vessel by detecting the location of the onset of the marker into the region of neovascularization.

45. (Previously presented) A method according to Claim 43, wherein the photosensitizer chemical is employed to determine the positions of blood vessel walls in the region of neovascularization.

46. (Previously presented) A method according to Claim 43, wherein the photosensitizer chemical is indocyanine green (ICG).

47. (Previously presented) A method according to Claim 39, wherein the photosensitizer chemical is employed in combination with a detectable marker, which detectable marker is different from the photosensitizer chemical and is employed to locate the feeder vessel by detecting the location of the onset of the marker into the region of neovascularization.

48. (Previously presented) A method according to Claim 47, wherein the photosensitizer chemical is indocyanine green (ICG) and the detectable marker is fluorescein.

49. (New) A method according to claim 39, comprising:

introducing a detectable marker into the circulation of the patient at a point remote from the eye;

observing a region of suspected neovascularization in the eye after introducing the marker; and

detecting the location of the onset of the marker into the region in order to determine the location of a feeder vessel to the region of neovascularization or an anomaly in the retinal pigment epithelium.

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50. (New) A method according to Claim 49, wherein the marker is a fluorescent dye, the region is illuminated by radiation that excites the dye and the first appearance of the dye in the region is detected as an increase in brightness by a predetermined amount above background levels.

51. (New) A method for treating neovascularization according to Claim 49, in a Choroidal Neo-Vascular Membrane (CNVM) in Age-related Macular Degeneration (AMD).

52. (New) A method according to Claim 49, wherein the region is observed by recording a succession of images of the region using an image recorder and subsequently examining the recorded images to identify the location of a feeder vessel feeding blood into the region.

53. (New) A method according to Claim 52, wherein the image recorder captures images at a rate of at least 30 per second.

54. (New) A method according to Claim 52, wherein recording of images of the region is triggered by trigger means associated with the image recorder and sensitive to an increase of the marker in the region.

55. (New) A method according to Claim 49, wherein the feeder vessel is treated by using a laser.

56. (New) A method according to Claim 49, further comprising introducing a second detectable marker into the circulation of the patient, and detecting the location of the second detectable marker in the region so as to determine the positions of blood vessel walls in the region.

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57. (New) A method according to Claim 56, comprising comparing the location of the first appearance of the first detectable marker into the region with the position of the blood vessel walls located by the second detectable marker to determine and/or confirm the location of a feeder vessel feeding blood into the region.

58. (New) A method according to Claim 55, comprising treating the feeder vessel using a laser wherein the waveband of the laser is the same as the absorption peak in the waveband of the second detectable marker.

59. (New) A method according to Claim 49, wherein a change in brightness is measured at the location of the onset of the marker and recorded against time to facilitate determining the location of the earliest onset of the marker into the feeder vessel.

60. (New) A method according to Claim 59, wherein the change in brightness is recorded graphically.

61. (New) A method according to Claim 56, wherein an image or images showing the earliest appearance of the first marker is made semi-transparent and then is superimposed on the real-time image in which the second marker is introduced, the

presence of the second marker in underlying locations in real-time indicating the suspected feeder vessel; and absence of the second marker in underlying locations indicating that the suspected feeder vessel has been coagulated successfully.

62. (New) A method according to Claim 51, wherein the AMD is an exudative form of Age-related Macular Degeneration.

63. (New) A method according to Claim 51, wherein blood supply to the neovascularization in the CNVM is substantially ceased by photocoagulation of a few feeder vessels feeding blood into the neovascularization.

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64. (New) A method according to Claim 63, wherein one to three feeder vessels are photocoagulated.

65. (New) A method according to Claim 49, wherein photocoagulation of the feeder vessel is achieved without substantial damage to blood vessels or tissues unrelated to the neovascularization.

66. (New) A method of treating a neovascularization in the eye of a patient, comprising:

permitting a photosensitizer chemical to enter the neovascularization;

photocoagulating a feeder vessel to substantially prevent said vessel from feeding blood to the neovascularization; and

after photocoagulating the feeder vessel, activating the photosensitizer chemical to destroy the neovascularization.